

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE CHICAGO & ALTON RAILROAD NEAR SHIRLEY, ILL., ON
MAY 15, 1921.

May 26, 1921.

On May 15, 1921, there was a collision between a passenger train and a cut of standing cars on the Chicago & Alton Railroad near Shirley, Ill., which resulted in the injury of 17 passengers and 2 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

Location and method of operation.

This accident occurred on the subdivision extending between Springfield and Bloomington, Ill., a distance of 58.5 miles; this is a double-track line over which trains are operated by time-table, train orders and an automatic block-signal system. The accident occurred at the north end of the southbound passing track at Shirley. At the north switch of this passing track there is a high switchstand, and protection is also furnished by shunting the track circuit through a switchbox. Approaching from the north, the track is tangent for a distance of 2,925 feet, while the grade is .29 per cent descending. At the time of the accident 85 bad-order, empty, freight cars were in storage on the southbound passing track, the first of these being 120 feet south of the clearance point of the north switch. The accident occurred at about 9.30 p.m., at which time the weather was clear.

Description.

The train involved was southbound passenger train No. 49. It consisted of 1 baggage car, 1 combination mail and passenger car, 1 chair car, 1 coach and 4 Pullman sleeping cars, hauled by engine 624, and was in charge of Conductor Draper and Engineman Felton. The first, fourth, fifth and eighth cars were of wooden construction, while the others were of steel-underframe construction. Train No. 49 left Bloomington at 9.22 p.m., 2 minutes late, entered the north passing-track switch and while traveling at a speed estimated to have been about 35 miles an hour collided with the cut of cars on the passing track.

Engine 624 was derailed and considerably damaged, the baggage car was demolished, the combination car was thrown down a 20-foot embankment, and the chair car was derailed. Two of the freight cars standing on the passing track were demolished, while six others were damaged.

Summary of evidence.

Engineman Felton said all of the automatic signals between Bloomington and the point of accident were displaying clear indications and that a green or clear indication was displayed by the switch lamp at the north passing-track switch. His first know-

ledge of anything wrong was when the engine headed in on the passing track, at which time he applied the air brakes in emergency, but he did not think the speed had been materially reduced at the time the accident occurred.

After the accident Engineman Felton and Conductor Draper examined the switch and found it to be set for the passing track with the switch lamp burning and displaying a clear indication. Engineman Felton said the bolt had been removed from the switch box controlling the block signal, while there was also a bolt missing from the connection between the switch stand and the switch target. The switch lock was afterwards found in a ditch 30 or 40 feet from the switch.

Signal Engineer Rhymer said he found that the switchbox rod controlling automatic signal 159, which is nearly 1 mile north of the point of accident, had been disconnected from the switch point lug by removing a pin and cotter key, leaving the switch box in normal position; the effect of this was to cause the automatic signal to display a clear indication with the switch open. Mr. Rhymer also found that the connecting rod between the switch stand and the target had been disconnected by removing a pin and cotter key, causing the indication of the switch lamp to remain at clear when the switch was opened. He thought the switch had been tampered with by some one familiar with signal connections, as both mechanical and automatic protection for the switch was destroyed.

No damage was sustained by the switch or signal connections, indicating that the switch had been fully opened and latched when it was entered by train No. 49, while examination of the track failed to disclose the presence of wheel marks on the ties or any indication of dragging equipment. Two southbound freight trains had passed this point within less than 1 hour of the time of the accident, extra 450, which left Bloomington at 8.00 p.m., and extra 884, which left Bloomington at 8.35 p.m.

Conclusions.

This accident was caused by the malicious opening by some unknown person of the north switch of the southbound passing track.

That this switch was opened with malicious intent is clearly apparent from the fact that the connections had been tampered with so as to cause both the switch lamp and the automatic block signal to display clear indications with the switch open.

The crew of train No. 49 were experienced employees. At the time of the accident the engine crew had been on duty less than 1 hour, after nearly 11 hours off duty, the train crew had been on duty about 3½ hours, after about 36 hours off duty.